King, V.L., et al., 1999. Attention deficit hyperactivity disorder and treatment outcome in opioid abusers entering treatment. *Journal of Nervous and Mental Disease* 187(8):487-495.

Latkin, C., et al., 1995. Using social network analysis to study patterns of drug use among urban drug users at high risk for HIV/AIDS. *Drug and Alcohol Dependence* 38(1):1-9.

Magura, S., et al., 1988. Contingency contracting with polydrug-abusing methadone patients. Addictive Behaviors 13(1):113-118.

McCarthy, J.J., and Borders, O.T., 1985. Limit setting on drug abuse in methadone maintenance patients. *American Journal of Psychiatry* 142(12):1419-1423. McLellan, A.T., et al., 1993. The effects of psychosocial services in substance abuse treatment. *Journal of the American Medical Association* 269:1953-1959. Milby, J.B., et al., 1978. Take-home methadone: Contingency effects on drug-seeking and productivity of narcotic addicts. *Addictive Behaviors* 3:215-220.

Platt, J.J., 1995. Vocational rehabilitation of drug abusers. Psychological Bulletin 117(3):416-433.

Silverman, K., et al., 1995. Incongruity between occupational interests and academic skills in drug abusing women. Drug and Alcohol Dependence 40:115-123.

Silverman, K., et al., 1996. Increasing opiate abstinence through voucher-based reinforcement therapy. Drug and Alcohol Dependence 41(2):157-165.

Stitzer, M.L.; Bickel, W.K.; Bigelow, G.E.; and Liebson, I.A., 1986. Effect of methadone dose contingencies on urinalysis test results of polydrug-abusing methadone-maintenance patients. *Drug and Alcohol Dependence* 18(4):341-348.

Stitzer, M., et al., 1977. Medication take-home as a reinforcer in a methadone maintenance program. Addictive Behaviors 2(1):9-14.

Stitzer, M. L.; Iguchi, M.Y.; and Felch, L., 1992. Contingent take-home incentive: Effects on drug use of methadone maintenance patients. *Journal of Consulting and Clinical Psychology* 60(6):927-934.

Woody, G.E.; McLellan, A.T.; Luborsky, L.; and O'Brien, C.P., 1995. Psychotherapy in community methadone programs: A validation study. *American Journal of Psychiatry* 152(9):1302-1308.

Zanis, D.A., and Woody, G.E., 1998. One-year mortality rates following methadone treatment discharge. Drug and Alcohol Dependence 52(3):257-260.



Tom Brewster, L.C.S.W., Chris Farentinos, M.D., and Douglas Ziedonis, M.D.

The changing methadone population

Chris Farentinos: The methadone population has changed. Today we are treating a jobless, skill-less population that is much more difficult to treat than the patients of decades past. Still, I am not sure I really see any difference in the effectiveness of methadone today compared to 10 years ago. I think you have one-third of people who will benefit, stay on methadone, get good results, improve their life conditions, get a job. You have a middle third who will have some relapses and will struggle, and might diminish the rate of criminal offenses related to drug-seeking. Then you have the bottom third who cycle through programs.

Doug Ziedonis: The field of addiction has more complicated patients now than in the past, because some of the easier patients got treatment and moved forward. In the 1980s, when the 28-day programs started, their success rate was phenomenal, probably because lots of people got into treatment who should have been treated as outpatients. The methadone programs that are left get all the really tough cases: dually diagnosed, polydrug, polylife problems. Methadone programs always get all the toughest cases.

Juice alone will work for some people, but not for tougher cases. So what are you going to do for that group? How do we strengthen the social treatment in these different places? Part of it is bringing over models from other settings, as Brooner and Kidorf have done.

What community programs can gain from the MSC model

Ziedonis: Having behavioral contracts in methadone treatment isn't a new thing, even in outpatient settings. The big issue is always, what are the consequences going to be? Are we going to discharge patients if they take drugs? Are we going to push them to a high level of care? Do we have a high level care that they can go to? Are we going to make them go to more NA meetings in the community?

Brooner and Kidorf's paper is good because here is one program spelling out the way it thinks about these issues. Some of the smaller programs that don't have big psychosocial treatment components still have behavioral plans, but theirs don't offer as many benefits, such as an IOP [intensive outpatient program] for patients who are doing well as inpatients. They are more limited on what positive perks there can be and usually only have negative consequences. And, from my experience, they usually are not rigorous in kicking out people who use drugs.

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to be?

Farentinos: The strength of the approach described in this article is that if you are a patient, your incentives are very strongly connected to attendance and changing your behavior. Best of all, the model can be translated to pretty much any other program.

Let me share what we do in an IOP with respect to punishment versus increased dosage. This is not a methadone program. One of the things we have found and it reflects exactly what the article is saying—is that if someone is failing in IOP, turning in drug-positive urines and decreasing attendance, policies are effective that say, so many missed sessions and you are going to be bumped up to a more intensive phase, or if you have a positive urinalysis, you'll get bumped up to the more intensive phase. If you produce a drug-free urine specimen, then you go down again. Having very clear benchmarks of progress gives the client a measure of control. It emphasizes the whole idea of motivational interviewing, in the sense of giving control by laying out the rules and consequences very clearly. I think that is very smart.

I met with my IOP people the day after reading this article, and a number of things came up because of the article. Many counselors have ideas about how we can use this structure to make our program better. At present we have people pay when they miss sessions, whether they are full-pay clients or even if they are paying reduced fees. They pay half of the charge for each session they miss, which is punitive, but it also encourages them to show up. Now we are thinking of incorporating an even more structured way to quantify steps and increase the client's control over whether he or she goes forward or backward.

One of the criticisms of voucher programs is the cost. With this MSC model, you have some implementation cost, training cost, and design cost, but you don't have the actual cost of vouchers. I think the MSC program design is thought through very well.

Tom Brewster: I am looking forward to presenting this article to my staff. The discussion will be: What do we do that is similar to this? How could we modify it to use some of these ideas?

Frankly, I think we will make some changes. Specifically, I think we'll want to quantify our steps more clearly than we do right now. Currently we make contingencies that involve take-home privileges, maybe an increase in counseling sessions, sometimes maybe

even an adjustment of fees. If you start having positive urinalyses, your fees will be adjusted upward, so you're better off not having positive urinalyses. I think our contingency system as it stands is a little unsystematic. Using Brooner and Kidorf's approach would clarify things for our staff. It would be standardized.

Acceptability of the MSC incentives to community programs and their patients

Brewster: From a harm-reduction standpoint, in our program we don't like to discharge patients for non-compliance. The risk of discharging patients from methadone programs is that they will inject drugs, which makes them vulnerable to HIV, hepatitis, and other diseases. Of course, if somebody pulls a gun in a clinic or makes threats, they are discharged. But for the most part, noncompliance with counseling sessions and what-have-you will not trigger a discharge.

When a person is noncompliant, this article suggests increasing the dose of treatment. I wouldn't want a patient to feel antagonism toward the counselor associated with the allegedly enhanced, almost punitive-appearing requirements for additional groups or sessions. I would rather have the clinic set certain rules: 'Your fee may adjusted; your take-home cycle may be adjusted. These are clinic rules and they work the same way for everyone.'

Ziedonis: Sometimes I use a medical model to explain contingencies to a patient. I say, 'Look, suppose you have a broken leg. It could be a simple fracture or a compound fracture. In addiction, too, there are variations in the illness. We are going to get to know you and work with you. We are going to start at this level, but if a higher level of care is needed, then you will have to go to a higher level of care.' It's framed, not that 'you did something wrong and then you get this consequence,' but more like 'we are trying to figure out the severity of the illness.'

Farentinos: Framing is very important. You can frame the thought as, 'You pay half the fee if you don't show up, because you did a bad thing.' Or you can frame it, 'We really want to see you here. We want to see you here so much that the incentive for you to be here is not only that you are moving forward faster and not being bumped into more intensive levels of care, but you also don't have to pay the extra fee.'